Internationalization and local research capacity strengthening

Internationalization and Local Research Capacity Strengthening: Factors Affecting Knowledge Sharing Between International and Local Faculty in Kazakhstan

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ABSTRACT

This study explores factors influencing the extent of engagement of international faculty in developing local research capacity. Drawing on ideas from research on knowledge sharing and on "intellectual commons," we found that while the faculty share explicit knowledge in publications and tacit knowledge by providing apprenticeship opportunities for their students, they remain disengaged from building capacity of local academics. We argue that the main reasons for this disengagement is ambiguity in interpretation of the social contract, ineffective reward structures, and the lack of tenure contracts.

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Introduction

As governments around the world view effective research and innovation system as essential for economic growth and recognize the role of research universities in national innovation systems (Altbach, 2013), many countries in the global South are frequently focusing their resource-constrained efforts on a small number of "world-class" universities (Salmi, 2009). Following the ideal "global model of the research university" conceptualized from the quintessential characteristics of "the top stratum of (the established) research universities" (Mohrman, Ma, & Baker, 2008, p. 6), higher education policy-makers promote internationalization as a defining element of higher education competitive development strategies (Jacob & Meek, 2013).

It is understood that internationalization, in the form of faculty/student mobility and international collaboration, links a research university to the global knowledge production system (Jacob & Meek, 2013). Governments in non-Western world are willing to pay high salaries to attract international faculty to their universities acting on the assumption that they enhance local research capacity by (1) actively engaging in globally competitive and locally relevant research, as well as by (2) contributing to knowledge exchange (De Witt, 2009). While several studies showed that international faculty bring a considerable contribution to domestic science in Western contexts (e.g., Black &

Stephan, 2010; Corley & Sabharwal, 2007), the extent to which, the ways in which, and the circumstances under which they contribute to local research capacity in non-Western contexts is not clear.

In our previous article (Kuzhabekova & Lee, 2018) we explored data on publications from Kazakhstan to determine the extent to which and the ways in which capacity is strengthened as a result of engagement of international faculty in the country with the lower level of research capacity. We found that international faculty participated in diverse collaborations abroad, thus contributing to integration of their host institutions into global research networks via their own research, but not necessarily helping local faculty to achieve that. One of the insights for future research was realization of the gap in understanding of the factors affecting local research capacity strengthening by international faculty. In this article, we supplement our previous bibliometric investigation with an additional qualitative inquiry to answer the central research question: "What are the factors affecting local research capacity strengthening efforts by international faculty?"

To answer the research question, we use knowledge sharing theory as a conceptual framework. Research capacity strengthening can be treated as the process of knowledge sharing, whereby the knowledge shared is about the disciplinary problems, theories, and methods, but also about the organization of the process of research at the individual project, team, organizational, disciplinary, and national research system levels. Our literature review revealed that there was much research on factors affecting knowledge sharing in business organizations, which offered insights on factors, which might potentially affect research capacity strengthening at universities.

In choosing knowledge-sharing theory as a conceptual framework for our study we focus predominantly on determinants of individual behavior, the extent to which faculty members engage in knowledge exchange. Our previous research showed that international faculty's contribution to research capacity strengthening remains limited in terms of sharing their knowledge with local faculty. While we want to understand variables at various levels, including knowledge-related, individual, organizational, and environmental, the focus here is to understand how these factors shape the behavior of individual faculty members. In this respect, we follow the increasing recognition in knowledge sharing research of the role of individuals in knowledge management processes (Earl, 2001)[AQ1].

From Local Capacity Building to Research Capacity Strengthening

The concept of research capacity strengthening emerged from the concept *local capacity strengthening*, understood as the ability of individuals, organizations, or systems in the global South to perform functions, which were previously performed by donors, independently (UNDP, 1998, p. 13[AQ2]). Over time, the latter concept, transformed from (1) capacity *building*, assuming aid-recipient's zero initial ability due to structural deficiencies to be eliminated with technical and resource transfers (e.g., Kharas, 2005), to (2) capacity *development*, viewing capacity as a non-zero stock varying between local socio-political contexts, and focusing on enhancing the already existing abilities (e.g., Harris, 2004), to (3) *bilateral* capacity *improvement*, conceptualizing the process of capacity accumulation as occurring on both ends of development projects (Stein & Ahmed, 2007).

The gradual change in the way capacity strengthening was understood and implemented in international aid projects around the world was largely influenced by a range of critical literature informed by decolonization/postcolonial studies and indigenous critical theory. These bodies of literature emerged as a critical response to modernization and dependency theories, which underlined international aid initiatives after the post-World War II decolonization of Africa, Asia, and Latin America (Obamba & Mwemwa, 2009[AQ3]). The critical scholars confronted the neoliberal development theorists dichotomic view of the world as modern/developed/Northern and traditional/developing/Southern, as well as their assumption that developing world (comprised primarily of former colonies) needed assistance from the modern world (comprised primarily of former colonizers) in order to catch up with the latter in terms of economic and social development. Critical scholars challenged the development theory and the North-driven modernization initiatives for promulgating colonial legacies and the existing hegemonies, which led to domination of capacity strengthening[AQ4] agendas by Northern scholars, disregard of local voices and needs, to exploitation of[AQ5] Southern participants, as well as to ethical violations and unequal distribution of costs and risks (Bradley, 20071~~6~~; Chu et al., 2014; Murphy et al., 2015[AQ6]). In response to this critique, donor approaches started to incorporate in the discourse about capacity strengthening the language of bilaterally beneficial partnerships, local ownership, and community-driven research agendas (Marjanovic, 2013[AQ7]).

Research has been an important area of capacity strengthening initiatives from the start of the development agenda. Modernity in the development discourse was linked to industrialization driven by science and technological innovation. The higher level of economic development of the countries in the North was attributed to their greater research and innovation capacity, determined by intellectual superiority, as well as by better access to funding and an institutional context (Burch, 1987[AQ8]). The earlier donor programs assisting the former colonies in the process of modernization included, as their part, a range of measures aimed at transfer of modern technologies and associated scientific knowledge (Burch, 1987). *Research capacity building* was introduced as a specialized term to describe a set of measures aimed at transfer of technology and knowledge with the purpose of improving the innovation potential and productivity of the economy. Subsequently, the concept of *research capacity building* was replaced by the concept of *research capacity strengthening*, implying bilateral knowledge exchange contributing to the development of innovation capacity rather than uni-directional knowledge transfer.

For the purposes of this article we will define *research capacity strengthening* in terms of three inter-dependent levels of analysis and implementation (Jones, Bailey, & Lyytikainen, 2007). At the individual level, research capacity strengthening is about building the critical mass of researchers, who have competence in thematic, disciplinary and methodological areas of knowledge production (Jones et al., 2007) to be able to participate on equal terms in the global knowledge production system. Examples of research capacity strengthening initiatives at the individual level include postgraduate international mobility schemes, the reform of postgraduate education, professional development and retraining programs, as well as research grants promoting international publication, dissemination, and collaboration. At the organizational level, research capacity strengthening is about "improving organizational structures, processes, resources, management, and governance issues, so that institutions are able to attract, train and retain capable researchers" (Jones et al., 2007, p. 2). Examples of initiatives at this level include the provision of funding aimed at promoting institutional partnerships with universities abroad, grants, and incentives systems encouraging university-industry collaborations, and funding schemes allowing universities to hire international faculty. At the systems level, research capacity strengthening refers to "the adoption of coherent policies, strategies and effective coordination across sectors and among governmental, non-governmental and international actors" (Jones et al., 2007, p. 130). Examples of initiatives at this level include improving research infrastructure by creating shared-use research facilities, strengthening intellectual property regimes, as well as establishment of specialized national-level research coordinating bodies and adoption of consistent research development strategies.

Conceptualizing Knowledge Sharing

Knowledge sharing in organizational studies refers to exchange or dissemination of explicit or tacit data, ideas, experiences, or technology between employees or their groups (Wang & Noe, 2010) with the purpose of improving group performance (Alavi & Leidner, 2001[AQ9]). In higher education faculty most importantly share knowledge with their students in the process of teaching. The main interest in this study, however, is the knowledge, which is directly related to their research expertise and know-how in their field.

While hundreds of studies were conducted on factors affecting knowledge sharing in the private sector (e.g., Cabrera & Cabrera, 2002; Magnier-Watanabe & Senoo, 2010), few studies explored the factors in the context of higher education, especially in non-Western countries (e.g., Al-Kurdi, El-Haddadeh, & Eldabi, 2018; Cheng, Ho, & Lau, 2009; Fullwood, Rowley, & Delbridge, 2013). Meanwhile, some authors argued that knowledge sharing in higher education institutions has some unique properties (Fullwood et al., 2013[AQ10]).

First, universities primary production process is centered on generation and dissemination of knowledge, a special type of publicly funded and appropriated good (Fullwood et al., 2013). Part of the social contract to which universities are historically upheld is to serve as "intellectual commons"—a knowledge archive openly accessible to all members of society (Argyres & Liebeskind, 1998). Following the practices of "open science" universities are expected to ensure that all its scientists publicly disclose all new discoveries to allow for evaluation, replication, and further research (Merton, 1973).

Second, a distinguishing feature of the higher education sector is academic freedom and autonomy (Cronin, 2001). University administrators cannot dictate to faculty how much to reveal about methods in publications in the same way as they cannot dictate which topics to pursue and how to approach them (Jensen & Heckling, 1995[AQ11]). Faculty have the power to determine what is contributed to the intellectual commons and what is kept private. Third, Clark (1987) pointed to the dual nature of faculty affiliation—with the hiring higher education institutions (HEIs) and

with professional societies, which make faculty more oriented to knowledge sharing with professional colleagues outside the employing organization. Fourth, some scholars noted the unique nature of leadership in universities, combining two types of controls—academic (collegial) and managerial(hierarchical), the interplay between which has an impact on treatment of knowledge as the realm of private or public (Fullwood et al., 2013).

It is important to note here that, despite the fact that the four features continue to uniquely shape knowledge sharing in universities, in the era of privatization and globalization of higher education, academic freedom and intellectual commons as academic ideals have been shattered. As the share of private funding of research increases, so do the incentives for faculty to withhold knowledge (Argyres & Liebeskind, 1998). This is especially true for research in industry-related fields, such as research in medicine, sciences, and engineering, where projects are frequently funded by private companies, which put constraints on academic freedom of scholars and their rights to share their findings publicly by retaining intellectual property over the results of research in the effort to reap commercial benefits (Thompson, Dreben, Holtzman, & Kreiser, 1983). Globalization, on the other hand, has transformed intellectual commons from the stock of knowledge produced predominantly by the West and for the West into a stock, which is increasingly expected to be co-produced and co-shared by scholars from around the world. Meanwhile, as Mignolo (2013) notes, the global intellectual commons continues to be influenced by geopolitics and colonial legacies, whereby as Shahjahan and Morgan (2016) claim "only certain local knowledge systems, always already derivatives of particular historical-material conditions (and even backed by military power), have the social privilege to shape global thinking" (p. 95). These global commons operate mostly as a system of Western-published and English-dominated scholarly journals (Curry & Lillis, 2004), to which non-English-speaking scholars from non-Western countries have limited access, where Western theories and methodologies proliferate, whereas non-Western problems, approaches, and ideas are considered irrelevant (Alatas, 2001), These Western-dominated intellectual commons "homogenize the multiplicity of non-Western realities, devalues epistemic differences, and overlooks alternative interpretations" (Silova, Millei, & Piattoeva, 2017, p. 75), keeping the modern global production both "territorial and imperial" (Silova et al., 2017, p. 76), and refusing to accept non-Western scholars "in the capacity of a rational subject" (Tlostanova, 2015, p. 38). To summarize, in the global intellectual commons of today neither every scholar has the motivation to share new knowledge openly nor every scholar has access to the commons either in terms of contributing their ideas or learning the ideas from others.

Prior research identified several groups of factors, which affect knowledge-sharing in organizations, including HEIs: (1) knowledge-related; (2) individual, (3) organizational, and (4) environmental. The main findings from the literature about the contribution of the factor are summarized heretofore.

Two characteristics of knowledge have significant influence on the sharing of knowledge in organizations: the extent to which knowledge is tacit or explicit and the perceived value. Explicit knowledge can be easily codified, stored at a single location, transferred across time and space independent of individuals (Lam, 2000). It is frequently shared and disseminated in organizations via open network sharing systems (Cheng et al., 2009). Tacit knowledge pertains to know how, which is not easily codifiable and cannot be communicated or used without the individual who is the knower (Ipe, 2003). Tacit knowledge is frequently shared person-to-person (Cheng et al., 2009) within "communities of practices" (Ardichvilli, Page, & Wentling, 2003).

As has been mentioned earlier, as a result of privatization and commercialization of intellectual property, knowledge is increasingly perceived by faculty as having a commercial value (Argyres & Liebeskind, 1998; Weiss, 1999). While faculty pay depends on the amount of publicly shared knowledge, shared knowledge turns into a non-excludable and non-rivalrous public good, which loses a potential for generating private return. If a faculty has an opportunity to supplement their salary by selling a part of their knowledge to commercial entities, they have a disincentive to engage in knowledge-sharing (Empson, 2001).

Behavioral and motivational determinants are given most attention in the literature. Prior research demonstrated that trust (Aulawi, Sudirman, Suryadi, & Govindaraju, 2009; Wang & Noe, 2010), self-efficacy (Bock, Zmud, Kim, & Lee, 2005; Kankanhalli, Tan, & Wei, 2005), reciprocity (Bock et al., 2005; Davenport & Prusak, 2000), motivation (intrinsic and extrinsic)/rewards/incentives, job satisfaction/commitment/security, availability of time, and demographic variables are important factors of knowledge sharing (Kanaan & Gharibeh, 2013; Wang & Wang, 2012).

To be willing to share or to adopt knowledge in the process of sharing an individual should trust their counterpart (Kramer, 1999). Barriers to trust rise from perceptions that others may be exploiting the cooperative effort (Kramer,

1999), especially, in the contexts where one's intellectual property may be stolen (Cheng et al., 2009). Internal motivational factors include the perceived power attached to the knowledge and the reciprocity resulting from sharing knowledge. If having knowledge is associated with power, individuals are unlikely to share it, especially, in resource constrained competitive environments (Gupta & Govindarajan, 2000). Expectation of reciprocity, whether negotiated in advance or not is also essential in knowledge sharing (Schultz, 2001). External motivational factors for knowledge sharing include relationships with the recipient and rewards for sharing (Weiss, 1999).

Organizational factors identified as relevant in the literature include organizational culture, leadership, and structure. Culture shapes assumptions about which knowledge is important, controls the relationships between different levels of knowledge (organizational, group, individual), and creates the context for social interaction (De Long & Fahey, 2000). Organizational norms and practices that advocate individual ownership of knowledge severely impede the process of knowledge (Nonaka & Takeuchi, 1995, p. 167). Lack of top management support for and participation in knowledge sharing can be detrimental to the process of knowledge exchange between employees (Chen, Sun, & McQueen, 2010). In addition, overly controlling bureaucratic and hierarchical structures may affect trust (Riege, 2005), while reward structures may influence motivations for knowledge sharing (Riege, 2005).

Two environmental variables are discussed in prior research—national culture and intellectual property regime in the country. The few studies in non-Western contexts, such as the Middle East, Africa, South America, Russia, Malaysia and China (Al-Alawi, Al-Marzooqi, & Mohammed, 2007; Ardichvilli et al., 2003[AQ12]; Kanaan & Gharibeh, 2013) show that there seem to be some relationship between national culture and organizational knowledge sharing. The nature of this relationship requires more in-depth exploration (Al-Kurdi et al., 2018). Several authors, also pointed to the importance of intellectual property regime for knowledge sharing, especially in knowledge-intensive organizations (Cheng et al., 2009; Riege, 2005). In business studies, consideration of environmental factors is limited to the ones, which take place within the context of a single country. We argue that the environmental context is much broader in the case of knowledge sharing at universities due to the global nature of knowledge-production function of the organizations. As has been mentioned earlier, universities produce knowledge for the global commons and the global knowledge production system has been influenced by the logic of coloniality with certain configurations of epistemic and linguistic dominance. Therefore, in our analysis of knowledge-sharing factors in Kazakhstan a broader context of knowledge production was considered.

Studies on factors of knowledge-sharing by academics are limited. An overview of the state of knowledge on the topic was provided in a recent article by Al-Kurdi et al. (2018), who implemented a systematic review of the literature on knowledge sharing in HEIs. The authors identified 82 relevant publications on knowledge sharing in universities, however, only 14 studies were concerned with knowledge sharing among academics. Most of the studies were quantitative in nature and were conducted within the field of organizational studies, where researchers may have limited understanding of the nature of the social contract underlying the mission of universities. Unsurprisingly, the studies made conclusions, controversial from the point of view of traditional higher education research, that knowledge hoarding is common among academics (e.g., Chen et al.,[AQ13] 2010; Currall & Judge, 1995) due to, among other things, individualistic nature of academics and research (Kim & Ju, 2008). While previous reviews (~~Al-Kurdi et al., 2009~~[AQ14]~~;~~ Chen et al., 2010) seem to have taken the conclusions of previous studies at their face value, we believe that more in-depth explorations of the factors affecting knowledge-sharing in higher educational institutions across various institutional types and cultural contexts is necessary. In addition, new studies should be based on solid understanding of the social-contract-based nature of the university mission.

Prior research also explored some of the factors of knowledge sharing in the academic context. However, many of them focused on only one of the factors: (1) trust, motivations, and knowledge self-efficacy (Bock et al., 2005; Goh & Sandhu, 2014); (2) organizational culture (Hislop, Bosua, & Helms, 2018[AQ15]; Wang & Noe, 2010); (3) technology and communication channels (Riege, 2005; Chen et al., 2010). According to Al-Kurdi et al. (2018), "the understanding about knowledge sharing in HEIs is fragmented and does not comprehensively consider numerous factors that might influence academics to share their knowledge" (p. 239).

Contextual Background

In pursuit of economic growth via industrial diversification and innovation the government of Kazakhstan has taken serious steps toward increasing the country's research capacity. Main government initiatives in this respect focus on (1) the creation of the modern research and innovation infrastructure (modernization of equipment in national-

level and university-based research labs, establishment of techno parks, creation of shared use laboratory facilities, improving research funding schemes, and establishment of coordinating bodies), as well as (2) training and development of the national research cadre.

With respect to the second area of focus, the main mechanisms entail the reform of postgraduate education (introduction of American-style PhD programs in universities to replace Soviet-style two-tiered programs) and internationalization initiatives aimed to attract international faculty to Kazakhstan, as well as to stimulate post-graduate training, research visits, and professional development of researchers abroad. Most notable examples of internationalization initiatives include (1) the Presidential national-level "Bolashak" scholarship funding degree-leading education abroad, which has sent thousands of students to pursue undergraduate and graduate degrees to various countries of the world (Perna, Orosz, & Jumakulov, 2015), as well as (2) the creation of the Nazarbayev University, which aspires to become the largest in the region world-class research university. The Nazarbayev University was established in partnership with several internationally reputable research universities, such as Cambridge, University of Pennsylvania, Duke and others. It also receives a substantial share of public higher education funding to hire faculty from abroad, as well as to attract international students. Over 90% of international faculty at the Nazarbayev University are foreigners, who are expected to contribute to the development of the local research capacity as one of their contractual obligations (Kuzhabekova & Lee, 2018).

Methods

The study is aimed at generating a more in-depth and contextualized understanding of a social phenomenon—the process of knowledge sharing leading to research capacity strengthening. The central research question of the study is "What are the factors affecting local research capacity strengthening efforts by international faculty?" Given the exploratory nature of the study, a basic descriptive qualitative approach was used. Such an approach is aimed at generating "a comprehensive summary of events in the everyday terms of those events" (Sandelowski, 2000, p. 335). To obtain comprehensive understanding of the central phenomenon the data was collected with in-depth semi-structured face-to-face interviews conducted in English.

Our main subjects were international faculty employed in Kazakhstani universities. The qualifier *international* in this study refers to any faculty who lives and works in Kazakhstan without current or prior Kazakhstani citizenship and who are employed *full-time.* The two important criteria of full-time work and non-Kazakhstani citizenship eliminate visiting professors, who spend a limited period of time in Kazakhstan, as well as Kazakhstani returnees.

We interviewed 27 full-time international faculty, who have worked in Kazakhstani academia full-time for at least a year. Interviews were conducted in five universities of Astana and Almaty employing the majority of international faculty in the country. Maximum variation sampling was used to diversify the participants on the following traits: age, gender, discipline, rank, and home country.

Among the international participants, the following countries were represented: USA (5), Canada (4), Turkey (3), Australia (2), Belgium (2), Czech Republic (2), UK (2), Austria (1), India (1), Italy (1), Japan (1), Korea (1), Poland (1), and Uzbekistan (1). Majority of participants came from social sciences (24), followed by natural sciences and mathematics (10), engineering (6), life sciences (3), and humanities (2). In terms of academic rank, the participants were represented by full professors (7), associate professors (13), assistant professors (21), and instructors (4). An attempt to balance gender among participants was not successful given the large number of males in the expatriate academic community (Richardson, 2009). There were only 10 females among the interviewees. Therefore, the sample was overrepresented in terms of social scientists and males but was representative of the situation at the university in terms of ranks and countries of origin with the majority of the university faculty coming from the Western countries and being hired at the junior rank.

Results

The main finding from our interviews is that the competing influences of the traditional "open science" values in higher education and the more recent neoliberal views of knowledge as having a commercial value moderate the relationship between various factors and the extent of knowledge sharing in academia so that the resulting variability in faculty behaviors is much greater than what has been observed in studies conducted in the private sector. Faculty are

not uniformly knowledge hoarders as has been claimed in prior studies of knowledge sharing in higher education. Nor they are idealistic knowledge sharers as is traditionally believed by academics.

One of the most revealing findings was about the primary ways in which the faculty engaged in capacity strengthening. We found that international faculty focus mostly on students. They try to provide opportunities for research assistantships and internships, as well as other lab-based and project-based research experiences willingly sharing their expertise with the younger generation of researchers. To a much lesser degree international faculty reported being engaged in knowledge sharing with local faculty unless these faculty hold a post-graduate degree from abroad. Even less so, international faculty contribute to organizational and system-level capacity strengthening. Our interpretation of the differentiated approach to sharing is largely based on findings on the role of various factors, which are summarized below.

An important factor discussed in the literature is the nature of knowledge shared. In this study, we found that it is tacit knowledge that international faculty share differently with students and local faculty. International faculty willingly share explicit knowledge with various international and local audiences by publishing articles in international journals, transferring their disciplinary expertise to students via teaching and to both junior and senior local scholars via specialized workshops and seminars. What international faculty share selectively is the tacit knowledge about the specifics of the theories, procedures, and methods that they used to get to their innovative results. The order of knowledge acquisition (tacit knowledge acquisition requires explicit knowledge base as a prerequisite), and the manner of sharing explains the selectivity. First, unlike most local faculty, students have the necessary disciplinary knowledge base (explicit knowledge), so transfer of tacit knowledge to them is perceived as less effort intensive. Second, they are co-located at the same institution with the international faculty, which is important for face-to-face apprenticeship-type transfer.

Meanwhile, international faculty are disinclined to engage in collaborations with the local faculty, who have been trained in the Soviet Union or contemporary Kazakhstani universities because they perceive local faculty as having poor disciplinary and methodological knowledge, as well as research communication skills. Alternatively, they may acknowledge that the local faculty have this explicit knowledge base, but believe that it is too narrow and does not offer any opportunities for development of a project, which would allow both explicit and tacit knowledge to be enhanced on both sides:

One problem was that in the Soviet Union, people were very specialized knowing close to nothing about anything but their very narrow subject, but then they did this subject very deeply, and very often got incredible results, but this focus on depth rather than width in Soviet Union also limits collaboration. (Associate Professor in Mathematics, male)

Motivational factors also help to explain the differences in international faculty's engagement in capacity strengthening of junior and senior local researchers. For many faculty members, starting a collaboration is conditional on whether they can trust the individual and perceive them as being reliable. Trust is essential because there is a potential for free riding in a collaborative relationship, whereby a collaborator may gain benefits without contributing to a research project either by procrastinating or, commonly for Kazakhstan, by plagiarizing the project idea, thus excluding the partner from benefits completely.

Many of our international faculty participants have less trust in locally trained faculty than in their own students, whom they teach about the need to protect intellectual property. The story shared by one male Assistant Professor in Physics describes a very common experience how trust can be undermined. Our participant recalled a situation when a senior local faculty from another university had suggested the physicist to collaborate on a project, but then had not contacted our interviewee for a long time. After a year of silence, the local faculty had suddenly written to the international scholar with a request to send him a complete manuscript that could be submitted to a local journal of dubious reputation. The international faculty decided to disengage from the collaboration interpreting the behavior as an attempt to free ride.

Trust building also requires time. Most people need to closely observe their potential collaborators for at least a year to decide whether they should engage in collaboration. It also takes time to come up with a project idea, which would benefit all those engaged, and to secure funding for implementation. Meanwhile, there is no tenure in Kazakhstani universities and a general practice is to hire international faculty on three-to five-year contracts, which do not allow for trust to develop and for collaborations to emerge. As one faculty explained:

I need to observe a person for 2 years or so before I commit myself to working with them. I must know them not just from the point of view of research output and potential, but also as a person. With the three-year contract I don't really have an incentive to invest into this type of cooperation because by the time I figure all these out, my contract is over. (Associate Professor in Economics, female)

Reciprocity of the value gained in the exchange is also essential for knowledge sharing. Given the common belief among international faculty that the local faculty have poor disciplinary knowledge, many international faculty members think that their local counterparts have little to offer in terms of methodological or theoretical innovations to their international peers. This makes international faculty less motivated to engage in knowledge sharing activities with locals. Meanwhile, having been taught the disciplinary basics by the international faculty themselves, students are assumed to lack only tacit knowledge, which they gain as apprentices. While training students requires time and effort, the investment pays off as students return to the international faculty in the short term in the form of inexpensive research assistance and in the long term by contributing their expertise as peer collaborators.

For international faculty access to the local languages, networks, and contextual knowledge seem to be the most important reciprocal gains from collaboration with local researchers. As one local collaborator indicated:

The locals have got a wealth of knowledge about the context, about the historical trajectory of the country, about the research context, about the participants that people who have not been here too long may not have. They have contacts that those, who have arrived more lately, may not have. (Full Professor in Economics, male)

Unfortunately, whenever international faculty are interested in gaining such local knowledge, language, or social ties, they tend to rely on their students. International faculty members motivation to engage in collaborative knowledge sharing is frequently undermined by power imbalance in the relationship between the international and local faculty and the disempowering effect that participation in collaboration with international faculty may have on locals. International faculty are frequently perceived by administrators as possessing more expert power than the local faculty, who are "treated like aboriginals" (Assistant Professor in Law, male). It is not surprising that the local faculty often perceive their international colleagues as a threat, which may affect their prestige and status as a researcher and may limit their career opportunities. As one of our international participants noted:

I have done a lot of trying since I have been here to reach out to established local academics, and I have a lot of people, who turned me down. There is a suspicion that because you are a foreigner, you are here to steal people's research career, that your work will be valued more than theirs. (Associate Professor in Management, female)

Consistently with the reviewed literature, organizational factors also affect the motivation of international faculty to engage in knowledge sharing. International faculty talked at length about the importance of a properly designed incentives structure. In most research universities collaboration between international and local faculty, as well as participation of international faculty in modernization of the research system is strongly encouraged. At Nazarbayev University, "best practices dissemination" is even reflected in the university's mission and is included in the list of international faculty responsibilities. However, this expectation is not reflected in the reward structure. Evaluation and promotion decisions do not account for the performance of a collaborating group, the number of local faculty members involved in a project or the hours of consulting research administrators at the organizational or national levels.

For individual performance to increase in a collaboration, the individual should expect benefits from either division of labor or enhanced expertise resulting from engagement of another knowledgeable individual. Neither are possible in view of many international faculty members in case of collaboration with local faculty members due to their assumed limited disciplinary knowledge base. In words of one of our participants:

You have to provide a lot of help and mentoring to those researchers, and, unfortunately, in the system of evaluating the faculty, this is totally unrecognized… I can do that, but it means that I will publish less articles, and then I have worse kind of evaluation as a result, so unless this is explicitly recognized and we get real incentives to do that because this is very time consuming, very labor intensive type of activity, I don't really have much incentive to do it. (Associate Professor in Economics, female)

Finally, three environmental factors seem to be particularly relevant for knowledge sharing in Kazakhstan. One is related to the state of intellectual property protection in the country. Growth of knowledge in the intellectual com-

mons is based on competition among researchers and research groups, whose pay depends on the scale of their contribution to the intellectual commons. If authorship cannot be properly identified, unproductive free riders would multiply, while pay would be unfair for productive contributors. Poor intellectual property protection in Kazakhstan has two negative outcomes in terms of knowledge sharing. First, international faculty do not publish in local journals even when they want the results of their research disseminated to local audiences due to pervasive plagiarism in local publications. Second, as has been mentioned above, they have a low level of trust in the local faculty, which makes them too cautious about starting collaborative projects with the senior scholars.

Another environmental factor, which has an impact on knowledge sharing in Kazakhstani academia is the nascent state of development of research communication system, in particular, the lack of international-level conferences in the country, which could provide opportunities for international scholars to come into contact with local faculty to engage in collaborations. International faculty tend to work in a small number of highly internationalized universities, where they find themselves in isolation from the rest of the higher educational system in Kazakhstan. Their collaboration with locals is restricted to contacts within the doors of their own universities. Our participants reported that they sometimes attempted to attend local conferences to expand their local network, but they found the experience disappointing:

I would want much more international-level conferences organized in KZ, not just economic and trade forums… those are not conferences, I am talking real academic conferences… to get the people here, to let them know who we are, what we do. (Assistant Professor in Economics, male)

The third environmental factor was difficult to reveal by the surface analysis of the interview data, which is implied by a descriptive qualitative approach, especially, given that the data came exclusively from international faculty. However, this factor became evident as a result of our collaborative discussion of the general narrative of the interviews and contrasted interpretation of the narrative given the differences in our own experiences as a local faculty member and an international faculty member. One realization that we came to as a result of this discussion is that, while many of the perceptions of our participants were determined by their objective experiences in Kazakhstani research environment, to some extent these perceptions were also shaped by the colonial discourse, which marginalizes post-Soviet scholars and fails to recognize the existing abilities of post-Soviet scholars, as well as their willingness and abilities to equally contribute to collaborative research. Within this discourse international faculty are positioned as being superior to local faculty and their perception of reality and of the behavior of local faculty is shaped accordingly, making them resistant to recognize the value in the input of the local faculty where such value may be present.

Discussion and Conclusion

Our results are consistent with our prior study's (Kuzhabekova & Lee, 2018) findings demonstrating that, as expected by policy-makers promoting internationalization of higher education for research capacity development, international faculty do contribute to local research capacity strengthening in Kazakhstan. While our bibliometric and social network analysis showed that they contribute by conducting research in areas identified as focus of government's research promoting policies, as well as by linking Kazakhstani universities to scholarly networks outside the country by engaging in collaborations abroad, this study showed that they also contribute by providing apprenticeship opportunities for junior researchers. However, both our articles, as well as similar studies in other contexts (Austin, Chapman, Farah, Wilson, & Ridge, 2014) pointed to the lack of collaboration between international faculty and local faculty. Given that the newly trained researchers constitute only a minor fraction of the research cadre in Kazakhstan due to the low prestige and unattractive salary in the profession, we find the lack of engagement of international faculty with local faculty problematic. The research capacity of most of the research cadre in Kazakhstan remains low.

On the surface, international faculty act consistently with the social contract—they are educating the future generation of local researchers and contributing to the global intellectual commons as they would be expected in a Western country with a high level of research capacity. The overall effort is moving the universities where they work several steps ahead in the global race of research universities. However, our analysis also shows that, at the background of increasing internationalization, most local academics with the invaluable knowledge of the local context, local cultural norms and values, and local ways of knowing remain unaffected and excluded from participation in the global quest for truth and continue to exist in isolation from the global scholarly community. With their exclusion, the issues facing the region, the original ideas influenced by the local values and resulting from the local ways of knowing may never enter the global intellectual commons. Meanwhile, international faculty apparently remain the archetypal an-

thropological "other," who filter their observations of "the aboriginals" via colonial lenses, reaching out to and Westernizing only the few aboriginals, who seem sufficiently civilized (students and Western-educated). Is this really the outcome that the *local* public wanted to achieve when committing to pay *local* money to invite the international faculty? Social contract *with whom* is international faculty observing?

Our findings support the arguments made in previous studies of international faculty in non-Western contexts (Austin et al., 2014). The lack of tenure is very problematic for universities in the South, which are heavily reliant on international faculty. Based on our findings it contributes the international faculty's lack of commitment to invest in longer term and more effort-intensive collaborations with local peers, which could lead to capacity strengthening on a larger scale. The "otherness" is the result of being rejected full membership in the organization and, consequently, in the society. In some ways, it maintains the artificial boundary between the "foreign" and "domestic," "the civilized," and "the aboriginal".

On the other level, our study shows that international faculty's unwillingness to engage in knowledge exchange with local faculty can be expected from the individual-oriented and publication-based reward structures, which pervade contemporary higher education. Because publications are oriented to *members* of a specialized community, who often become socialized in the discourse by senior colleagues via apprenticeship or mentorship, faculty in countries with lower levels of research capacity cannot obtain tacit knowledge and become fully active in the global discourse by reading publications alone. Meanwhile, international faculty are not rewarded for the extra effort necessary when collaborating with local researchers with very different theoretical and methodological backgrounds. Similarly, while their research is severely hampered by bureaucracy, lack of research culture, underdeveloped system of research communication, and failing intellectual property regimes, the efforts that they may take to address the problems are not recognized due to the absence of the tradition of shared governance and are not rewarded by the research and teaching-oriented reward structures. Service is not a real part of the social contract unless it is clearly accountable in the reward structures because faculty are private benefit seeking economic beings even within the idealized intellectual commons. The valid question then is how reward structures should be changed for universities in countries with lower levels of research capacity to stimulate international faculty engagement in service and collaborative research with locals and how to ensure that these structures allow international faculty to develop a curriculum vitae, which would be fully acknowledged in the global academic market to which international faculty members are oriented given the lack of assurance of permanent employment.

In sum, trying to explain the lack of engagement of international faculty in capacity strengthening of local faculty this paper used ideas from knowledge sharing research in organizational studies adjusted with the earlier ideas on "intellectual commons" and social contract between universities and society within higher education studies. It concluded that one of the reasons for disengagement of international faculty in sharing tacit knowledge with the local faculty could be the ambiguity in the interpretation of the social contract within a country with a lower level of research capacity, where knowledge sharing goes beyond educating students and contributing individual ideas to the common knowledge base. Correspondingly, the reward structures incentivizing the agent to act in the interest of the principal are also inherited from the West and do not account for service associated with coaching peers and modernizing research systems with lower levels of research capacity. Lack of tenure, as was demonstrated in prior studies of international faculty in universities in the global South, is one of the demotivators for international faculty to commit to the expanded version of the social contract, while lack of shared governance does not allow international faculty to fully engage in service related to modernization of research infrastructure. Finally, one of the main environmental factors impeding collaboration between international faculty and local faculty is the persisting colonial attitudes and distribution of power in global knowledge production system, whereby scholars perceived as representing the West are attributed greater expertise and abilities, whereby non-Western scholars are perceived as being inferior in the level of training and intelligence.

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